

Amendments to the claims:

Claims 1-8: (canceled)

9. (currently amended) An exposure and modulation device for modulating an exposure intensity in an integrated digital screen-imaging system, comprising a light source; a light modulator that includes a plurality of rows of light-modulating cells; a device for imaging on said light modulator; a device for imaging said light modulator on a photo sensitive material; a device for producing a relative motion between said light modulator and said photo sensitive material, so that a direction of motion is substantially perpendicular to a direction of said rows of said light-modulating cells; a device for scrolling a data pattern through various columns of said light modulator at a speed so that the imaging of any data pattern is kept substantially stationary relative to said photosensitive material during said motion; and at least one device for stopping the scrolling procedure after a certain adjustable number of cells of said light modulator used for exposure of said photosensitive material, wherein said device for stopping the scrolling procedure is capable of stopping the scrolling procedure individually for every pixel in the row, whereby exposure times can be controlled individually for each pixel.

10. (previously presented) An exposure and modulation device as defined in claim 9, wherein said light modulator includes a digital mirror device.

11. (previously presented) An exposure and modulation device as defined in claim 9, wherein said light modulator has 1024*758 cells.

12. (previously presented) An exposure and modulation device as defined in claim 9, wherein said light modulator includes a liquid-crystal array.

13. (previously presented) An exposure and modulation device as defined in claim 9, wherein said light modulator includes magneto-optical cells.

14. (previously presented) An exposure and modulation device as defined in claim 9, wherein said light modulator includes ferroelectric cells.

15. (currently amended) A method for exposure and modulation of exposure intensity in an integrated digital screen imaging system in which light from a light source is imaged on a light modulator that includes a plurality of rows of light-modulating cells, the method comprising the steps of modulating the light from the light source by the light modulator; thereafter imaging the light modulator on a photosensitive material moving in a motion relative to the light modulator; selecting a direction of motion substantially perpendicular to a direction of the rows of the light-modulating cells; scrolling data to be imaged on the photosensitive material through columns of the light modulator at a speed so that the imaging of any data pattern is kept substantially stationary relative to the

photosensitive material during the motion; and stopping the scrolling after a certain adjustable number of cells of the light modulator used to expose the photosensitive material, depending on the exposure time specified for a respective pixel on the material to be exposed, said stopping being carried out individually for every pixel in the row, whereby exposure times can be controlled individually for each pixel.

16. (previously presented) A method as defined in claim 15; and further comprising moving the data to be imaged to any column so that they can be transferred from there to subsequent columns.